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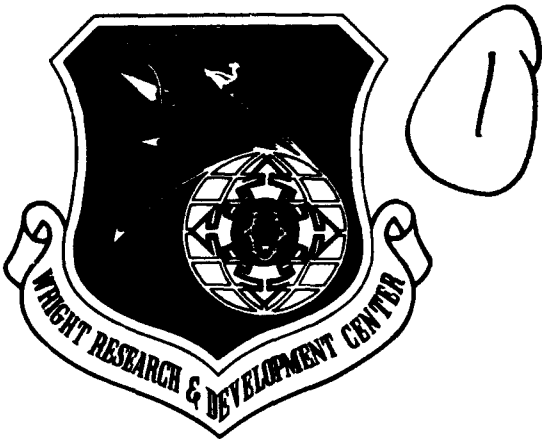

INTEGRATED INFORMATION SUPPORT SYSTEM (IISS)
Volume IV - IISS System
Part 5 - System Test Plan

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This technical report has been reviewed and is approved for publication.

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25 July 91
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This document summarizes the IISS current release system test results. It lists all tests performed and provides the test results.

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FOREWORD

This technical report covers work performed under Air Force Contract F33600-87-C-0464, DAPro Project. This contract is sponsored by the Manufacturing Technology Directorate, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Bruce A. Rasmussen, Branch Chief, Integration Technology Division, Manufacturing Technology Directorate, through Mr. David L. Judson, Project Manager. The Prime Contractor was Integration Technology Services, Software Programs Division, of the Control Data Corporation, Dayton, Ohio, under the direction of Mr. W. A. Osborne. The DAPro Project Manager for Control Data Corporation was Mr. Jimmy P. Maxwell.

The DAPro project was created to continue the development, test, and demonstration of the Integrated Information Support System (IISS). The IISS technology work comprises enhancements to IISS software and the establishment and operation of IISS test bed hardware and communications for developers and users.

The following list names the Control Data Corporation subcontractors and their contributing activities:

SUBCONTRACTOR	ROLE
Control Data Corporation	Responsible for the overall Common Data Model design development and implementation, IISS integration and test, and technology transfer of IISS.
D. Appleton Company	Responsible for providing software information services for the Common Data Model and IDEF1X integration methodology.
ONTEK	Responsible for defining and testing a representative integrated system base in Artificial Intelligence techniques to establish fitness for use.
Simpact Corporation	Responsible for Communication development.
Structural Dynamics Research Corporation	Responsible for User Interfaces, Virtual Terminal Interface, and Network Transaction Manager design, development, implementation, and support.
Arizona State University	Responsible for test bed operations and support.

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SECTION 1

IISS RELEASE 3.0 FINAL TEST REPORT

1.1 Introduction

This report is a summary of the successful IISS Release 3.0 integration and test activity that began August 1990, and completed November 1990. The activity included code check-in, build, system and installation testing, documentation review, update, verification, and release processing.

Integration and test (I&T) was performed on the IISS test bed. The system test configuration comprised the VAX/VMS. The database systems included Oracle and VAX DBMS.

The System Test Plan was used as the baseline control document throughout the integration and test activity.

Code stability and the integration process was controlled using the IISS Configuration Management System on the VAX/VMS.

Two types of system level tests were performed on the object code: regression and installation. The regression test consisted of executing script files against the built system. These scripts were predefined to exercise functionality and system compatibility of all new, enhanced, and existing features. The installation test was performed at the end of system testing; it consisted of executing and verifying the operation of the tested IISS executables. The baseline documentation used for this test were the VAX Guides. The summaries of these tests and their results are provided by this report.

1.2 Integration and Test Environment

The following hardware and software were used to install, build, and test the IISS Release 3.0:

VAX/VMS

o Hardware

Equipment
---
13 VT240 Monitors
13 VT240 Base Units
13 VT240 Keyboards
7 VT100 Terminals
7 VT100 Keyboards
Digital Letterwriter
2 VAX Operator Consoles
DEC Correspondent

8600 Cab
8600 Unibus Cab
8600 RLO2 Console
8600 CPU

  MS86-CA (16 Meg mem)
  MS86-BA (4 Meg mem)
  MS86-BA (4 Meg mem)
  MS86-BA (4 Meg mem)
  MS86-BA (4 Meg mem)
  CI-780 (Computer Interconnect)
  DW780-MA (Uni adapt)
  DW780-MB (Uni adapt)
  BA11-AL (Box)
    LP11 (print ctrler)
    DCA Board
  BA11-AL
    DMF32 (MUX)
    DZ11-A (MUX)
    DZ11-A (MUX)

780 CPU Cab
  RH780 (Massbus Ctrler)
  RH780 (Massbus Ctrler)
  MS780E (16 MEG mem)
  FP780 (Floating Point)
780 Unibus Cab
  BA11-KU (Box)
     DEUNA   (Ethernet)
     DUP11 (Sync Comm -- Currently in storage)
  BA11-KE (Box)
      DZ11-A (MUX)
      DZ11-A (MUX)
780 SBI Cab H9652-HA
  DW780 (Unibus Adapt)
  DW780 (Unibus Adapt)
  CI-780 (Computer Interconnect)
  MS780C (4 MEG mem)

5 Emulex SMDI Disk Drives
HSC70
Star Coupler
TU77-AF   Tape Drive
TA78-BF   Tape Drive
RM05 Adapter
2 RM05-AA Disk Drives
LP26-EB

2 DCA 355's
2 Microcom AX/9624C MNP's
Black Box SME V.35
2 Black Box 232 <-> v.35's
4 Codex 2121's
2 Intersil BIU/4004's
2 DCA 120's

PCI 1076
Universal Data Systems
6 Amdahl's
OHB MODEM (evandale)
CODEX 2600 modem (evan)
Racal Vadic Unit Power Supply
12 Racal Vadic Modem's
Racal Vadic Modem Housing
Racal Vadic Modem Power Supply
Racal Vadic Modem Unit Housing
Modem Cabinet
AT+T DataPhone II
Intersil Systems
Data Block Converter
Jerold Head In Filter
2 Dec Server 100's

- Software

Software	Version
VAX VMS	5.2
VAX C	3.0
VAX FORTRAN	5.3
VAX COBOL	4.2
IS Workbench	6.0
ORACLE	5.1.22
SPM	3.2
VAX DBMS	4.0
VAX CDD	4.1
VAX FMS	2.4
DECDX/VMS	1.2
WPS-PLUS/VMS	3.0
VAX 27/3780 PE	1.7

SECTION 2

I&T TEST RESULTS SUMMARY

2.1 Regression Testing

Regression testing consisted of executing script files against the built IISS system. These files were predefined to exercise the functionality of each new feature and update and the compatibility of these additions and changes with each other and all other system features. The baseline documents for this type testing included the unit test plans and the system test plan. All new IISS features and changes are listed in the system test plan.

2.1.1 Reported Problems, Notes and Cautions

All unresolved problems, that is, problems still outstanding at the end of system testing, based on their complexity, are stated either as significant problems, cautions, or notes under subsection 2.3.

2.2 Installation Testing

Installation testing was not as extensive as in previous releases of IISS. The testing consisited of exercisng IISS Release 3.0 executables built during system build. The VAX Installation Guilde was reviewed and verified during this process. Any errors or problems reported and not resolved by the end of system testing are included as either significant problems, cautions, or notes under subsection 2.3

2.3 Significant Problems, Cautions and Notes

The problems reported as a result of system testing and which could not be fixed in time for this release are described here. Each problem has been classified as significant, cautionary, or noteworthy. A significant problem is serious; its type prevents or restricts the usage of an IISS feature. The cautionary problem is one that restricts the performance of a feature, but not it's usage; for example, a feature that includes a function to place data it has retrieved into a specified area but can not do it unless an intervening action occurs. The feature, therefore, is usable but restricted because an intervention is required. The process or action required to make or allow this intervention is provided as acautionaryitem or caution statement. Other cautions are in the form of what one must avoid or be aware of in order to use a feature. A problem that is noteworthy is not serious enough to prevent or restrict a feature's usage, but an awareness of this type problem may ease or assist a user in fully applying the feature. A noteworthy problem may be an appearance of a message that has no relationship or impact on a pending current, or completed action. Other noteworthy problems can be misspelled or incorrectwords and terms appearing on terminal screens or in the user publications.

NDDL Processor

Significant Problems:

None.

Cautions:

The references to the Request Processor Main Modules currently remain in the CDM after all modules have been dropped for a logical unit of work. These references must be dropped through the Oracle interactive facility if the logical unit of work will not reference the same databases.

Notes:

None.

NDML Precompiler

Significant Problems:
None.

Cautions:
Only one user can execute a precompile at a time. If more than one user attempts a precompile in the same time frame, each user's temporary file may contain incorrect data.

Notes:
None.

Query Process Generator

Significant Problems:

None.

Cautions:

None.

Notes:

None.

CDM Maintenance Utilities

Significant Problems:

None.

Cautions:

None.

Notes:

None.

UI Forms Processor

Significant Problems:

None.

Cautions:

1. A field does not "blink" if there is a domain error and the "must enter" domain is implied by the "must fill" domain on input fields.

2. If while using a SET statement and a runtime error occurs in the "expression", no indication of this error is shown on the form; an example would be a character expression that is too large to fit in the target field.

3. Occassionally, a calculated graph field will not be "recon_printed".

4. The Form Processor will not recognize a function key action if the cursor is in a graph field.

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